

LUD 5330.3 DIV (09901357)REMARKS

Claims 20 and 24 have been amended and claim 21 has been canceled. As such, claims 20 and 22-26 are pending.

The Examiner has refused to grant the earliest priority date to the instant application. With respect to Application No. 08/230,491 (filed April 20, 1994), the Examiner maintains that it does not disclose a fusion or chimeric protein comprising portions of a non-FAP $\alpha$  protein, and therefore does not provide support for claims 20-21 and 23-26. The Examiner also claims that the disclosure does not enable claim 22. With respect to Application No. 08/940,391 (filed October 1, 1997), the Examiner maintains that the claims are not enabled by the disclosure, since partial enablement of claims 20-21 and 23-26 depend on Niedermeyer et al., European Journal of Biochemistry 254(2): 650-654 (June 1998), a reference that was cited in Applicants' Appeal Brief. As such, priority was granted only to the filing date of the instant application, March 10, 1999.

In light of the claim amendments made herein, Applicants maintain that Niedermeyer is not required for enablement (discussed *infra*), and priority should be granted to Application No. 08/940,391 (filed October 1, 1997).

The Examiner then rejected claims 20-26 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

With respect to claims 20-21, and 23-26, the Examiner maintains that while the specification enables an isolated protein comprising the extracellular domain of FAP $\alpha$ , it does not provide enablement for a fusion or chimeric protein comprising any smaller portion of FAP $\alpha$ . Specifically, the Examiner states that the specification does not indicate what residues of FAP $\alpha$  were used to construct the fusion protein described on pages 21-22. Furthermore, Figure 1 does not contain markings which identify any particular domain of FAP $\alpha$ . For these reasons, the Examiner believes that the specification alone is not enabling for how to make the claimed protein.

The Examiner notes, however, that the Niedermeyer reference teaches how to make fusion proteins comprising either a mouse or a human cytoplasmic domain of a FAP $\alpha$  protein, and specifically teaches that the cytoplasmic domain of the human protein consists of amino

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acids 27-760 and that the constructs have catalytic activity. Thus, she argues that Niedermeyer is required for enablement.

The Examiner acknowledges, however, that claims 20-21 and 23-26 are enabled for a protein comprising the extracellular domain of FAP $\alpha$ . Applicants have amended claim 20 to recite that the isolated protein comprises the extracellular domain of FAP $\alpha$  and to define said extracellular domain as comprising amino acids 24-755 of SEQ ID NO: 1. This range was selected because the specification states that the extracellular domain contains five potential N-glycosylation sites, eleven cysteine residues and SEQ ID NOs 4, 6 and 7 (see page 12, lines 19-23). The eleventh cysteine residue is at amino acid 755 and the first one is at amino acid 24.

In light of the amendment to claim 20, claims 20 and 23-26 are enabled by the specification. This was admitted by the Examiner at pages 4-5 of the December 3, 2003 office action. Thus, Niedermeyer is not required for enablement. Applicants respectfully request withdrawal of the rejection of claims 20 and 23-26 under 35 U.S.C. § 112, first paragraph.

Furthermore, the specification of the instant application is identical to the specification of Application No. 08/940,391 (filed October 1, 1997). Since the amended claims are enabled by the specification, a priority date of October 1, 1997 should be granted.

With respect to claim 22, it has been canceled, and this rejection is moot.

The Examiner also rejected claims 20-21, 23, and 25-26 under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner argues that the specification does not define what is meant by "at least one portion" of a non-FAP $\alpha$  protein, as used in claim 20. The Examiner notes that a "portion" may be a single amino acid, and since FAP $\alpha$  comprises all 20 amino acids, the "portion" could be part of a FAP $\alpha$  protein rather than a non-FAP $\alpha$  protein. Applicants have amended claim 20 to recite "at least one domain of a non-FAP $\alpha$  protein." Since the term "domain" cannot encompass only a single amino acid, Applicants request that this rejection be withdrawn.

The Examiner also rejected claims 20-21 and 22-26 under 35 U.S.C. § 102(a). Since Niedermeyer was published in June 1998 and priority to the earlier applications was not granted, the Examiner uses Niedermeyer as the basis for this rejection. However, priority should be

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granted to October 1, 1997 as discussed supra, which means that Niedermeyer is not prior art. Thus, this rejection is moot and should be withdrawn.

All rejections have been addressed and overcome. Allowance of this application is believed proper and is urged.

Respectfully submitted,

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